

Applicants: Ekaterina Dadachova et al.

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Filed: Herewith

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Amendments to the Claims:

Please cancel claims 38-40 and amend claims 3, 7, 9, 11-14, 16-20, 24-25, 27, 33, 35, and 37 as set forth below without prejudice or disclaimer.

1. (Original) A method of treating a tumor in a subject which comprises administering to the subject an amount of a radiolabeled antibody effective to treat the tumor, where the radiolabeled antibody binds to a cellular component released by a dying tumor cell.
2. (Original) A method of imaging a tumor in a subject which comprises administering to the subject an amount of a radiolabeled antibody effective to image the tumor, where the radiolabeled antibody binds to a cellular component released by a dying tumor cell.
3. (Currently amended) The method of claim 1 ~~or~~ 2, wherein the cellular component is selected from the group consisting of a histone, a mitochondrial protein, a cytoplasmic protein, a pigment, and melanin.
4. (Original) The method of claim 3, wherein the tumor is a melanoma and the cellular component is melanin.
5. (Original) A method for treating a melanin-containing melanoma in a subject which comprises administering to the subject an amount of a radiolabeled anti-melanin antibody effective to treat the melanoma.
6. (Original) A method for imaging a melanin-containing melanoma in a subject which comprises administering to the subject an amount of a radiolabeled anti-melanin antibody effective to image the melanoma.

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7. (Currently amended) The method of claim ~~1-5~~ 5 wherein the antibody is labeled with an alpha-emitting radioisotope.
8. (Original) The method of claim 7 wherein the alpha-emitting radioisotope is 213-Bismuth.
9. (Currently amended) The method of claim ~~1-5~~ 5 wherein the antibody is labeled with a beta-emitting radioisotope.
10. (Original) The method of claim 9 wherein the beta-emitting radioisotope is 188-Rhenium.
11. (Currently amended) The method of claim ~~1-5~~ 5 wherein the antibody is labeled with a radioisotope selected from the group consisting of a positron emitter and an admixture of any of an alpha emitter, a beta emitter, and a positron emitter.
12. (Currently amended) The method of claim ~~2-6~~ 6 wherein the antibody is labeled with a radioisotope selected from the group consisting of a beta emitter, a positron emitter, and an admixture of a beta emitter and a positron emitter.
13. (Currently amended) The method of claim ~~2-6~~ 6 wherein the antibody is labeled with a radioisotope selected from the group consisting of 99m-Technetium, 111-Indium, 67-Gallium, 123-Iodine, 124-Iodine, 131-Iodine and 18-Fluorine.
14. (Currently amended) The method of claim ~~1, 2, 5-6~~ 5 wherein the subject is a mammal.

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15. (Original) The method of claim 14 wherein the mammal is a human.
16. (Currently amended) The method of claim ~~1-4~~ 5 wherein the dose of the radioisotope is between 1-1000 mCi.
17. (Currently amended) The method of claim ~~1, 2, 5~~ ~~or 6~~ wherein the antibody is a monoclonal antibody.
18. (Currently amended) The method of claim ~~1, 2, 5~~ ~~or 6~~ wherein the antibody is a F(ab')<sub>2</sub> fragment or a Fab' fragment of a whole antibody.
19. (Currently amended) The method of claim ~~1, 2, 5~~ ~~or 6~~ wherein the antibody is an IgM antibody, an IgG antibody, or an IgA antibody.
20. (Currently amended) The method of claim ~~1, 2, 5~~ ~~or 6~~ wherein the antibody is a peptide.
21. (Original) The method of claim 20, wherein the peptide is positively charged.
22. (Original) The method of claim 20, wherein the peptide is a decapeptide.
23. (Original) The method of claim 22, wherein the decapeptide is 4B4 (YERKFWHGRH) (SEQ ID NO:1).
24. (Currently amended) The method of claim ~~5~~ ~~or 6~~ wherein the antibody is 6D2.

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25. (Currently amended) The method of claim ~~1, 2, 5 or 6~~ wherein uptake of radiolabeled antibody by the kidney is inhibited by administering a positively charged amino acid to the subject.
26. (Original) The method of claim 25, wherein the amino acid is D-lysine.
27. (Currently amended) The method of claim ~~1 or 5~~ which further comprises administering to the subject an amount of antibodies radiolabeled with a plurality of different radioisotopes.
28. (Original) The method of claim 27, wherein the radioisotopes are isotopes of a plurality of different elements.
29. (Original) The method of claim 27, wherein at least one radioisotope is a long range emitter and at least one radioisotope is a short range emitter.
30. (Original) The method of claim 29, wherein the long-range emitter is a beta emitter and the short range emitter is an alpha emitter.
31. (Original) The method of claim 30, wherein the beta emitter is 188-Rhenium and the alpha emitter is 213-Bismuth.
32. (Original) The method of claim 27, wherein the plurality of different radioisotopes is more effective in treating the tumor than a single radioisotope within the plurality of different radioisotopes, where the radiation dose of the single radioisotope is the same as the combined radiation dose of the plurality of different radioisotopes.

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33. (Currently amended) The method of claim 5 ~~or 6~~ wherein uptake of radiolabeled anti-melanin antibody in the melanoma is at least 10 times greater than in surrounding muscle.
34. (Original) The method of claim 33, wherein the antibody is a peptide that binds to melanin.
35. (Currently amended) The method of claim 5 ~~or 6~~ wherein the radiolabeled anti-melanin antibody is not taken up by non-cancerous melanin-containing tissue.
36. (Original) The method of claim 35, wherein the non-cancerous melanin-containing tissue is hair, eyes, skin, brain, spinal cord, and/or peripheral neurons.
37. (Currently amended) The method of claim 1 ~~or 5~~, which comprises multiple administrations of the radiolabeled antibody to the subject.
- 38-40. (Canceled)